Optical Rain Gauge Calibration Check (CALC)

I. Purpose:

This document describes the steps performed by the RESET team to check the calibration of the optical rain gauge sensors.

II. Cautions and Hazards:

None.

III. Requirements:

- Rain.
- Rain gauge.

IV. Procedure:

A. Steps:

1. Place rain cup near optical rain gauge in a nonsheltered location during rain.
2. Record optical rain gauge output.
3. After about 10 mm of rain collects in rain cup, compare optical rain gauge difference with amount collected in cup.
4. If difference is less than 20%, log difference and stop.
5. Otherwise, contact mentor and replace instrument if necessary.
6. If replaced, repeat steps above.
7. Record the date, start-time, end-time, and any comments in the Site Data Log.

Notes pertaining to "Optical Rain Gauge Calibration," PRO(ORG)-003.:

- ADaM reports one minute average rain rates in mm/Hr. These values need integration in order to compare with the rain cup.
- One spare ORG was ordered for the first 3 ARCS. It will be sent with RESET.
- A tipping bucket rain gauge will probably be added in a future upgrade that is used for comparisons. (There are two items numbered 6.)

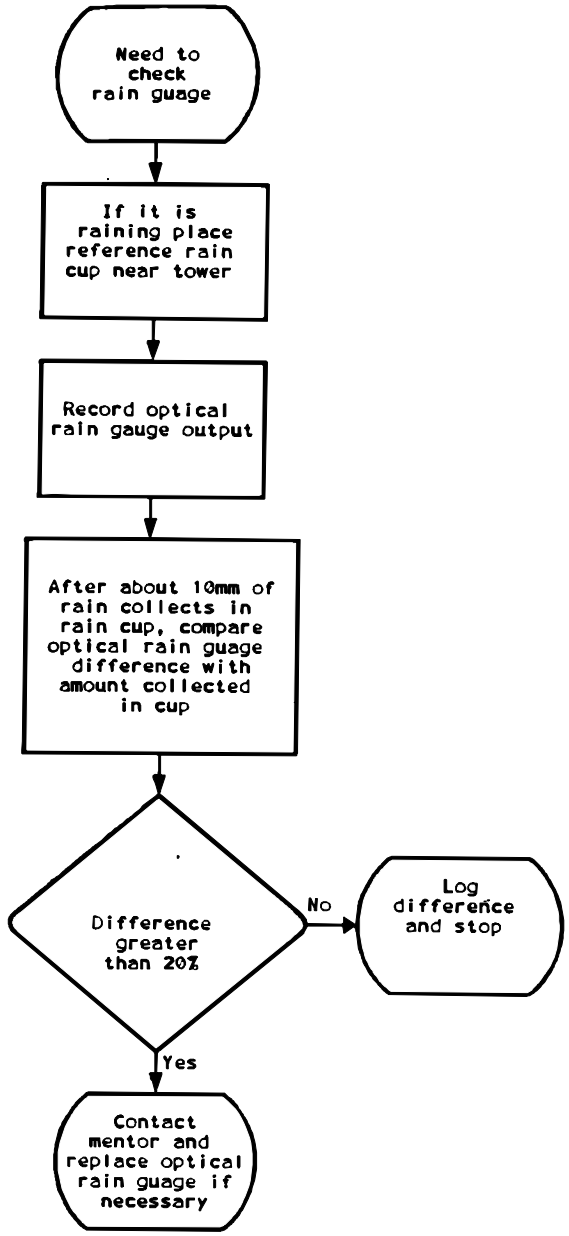
V. References:

1. Hart, R., "Element Operations and Maintenance Procedure Development Outline," 1995.

VI. Attachments:

1. Acceptance Test, Rain Gauge.

Figure 1.


Need to check rain guage
If it is raining place reference rain cup near tower
Record optical rain gauge output
After about 10mm of rain collects in rain cup, compare optical rain guage difference with amount collected in cup
Difference greater than 20%
No
Log difference and stop
Yes
Contact mentor and replace optical rain guage if necessary